

**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A SUBMISSION UNDER 35 U.S.C. 371**

INTERNATIONAL APPLICATION NO.  
PCT/EP2003/014352

INTERNATIONAL FILING DATE  
16 December 2003

ATTORNEY'S DOCKET NUMBER  
14219-088US1 P2003,0070 US N

U.S. APPLICATION NO. (If known, see 37 C.F.R. 1.5)

PRIORITY DATE  
10 February 2003 MED

TITLE OF INVENTION  
FRONT-END CIRCUIT COMPRISING THIN-FILM RESONATORS

APPLICANT(S) FOR DO/EO/US  
Edgar Schmidhammer, Pasi Tikka and Ralph Stoemmer

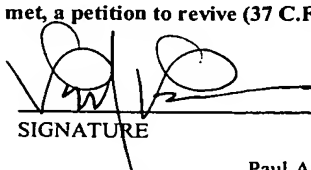
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a submission under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a submission under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☐ The US has been elected (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
  - a. ☒ is attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ has been communicated by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
  - a. ☒ is attached hereto.
  - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
  - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ have been communicated by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☒ have not been made and will not be made.
8. ☐ An English language translation of amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11 to 20 below concern document(s) or information included:

11. ☒ An Information Disclosure Statement under 37 C.F.R. 1.97 and 1.98.
12. ☒ An assignment document for recording. A separate cover sheet in compliance with 37 C.F.R. 3.28 and 3.31 is included.
13. ☒ A preliminary amendment.
14. ☐ An Application Data Sheet under 37 C.F.R. 1.76.
15. ☐ A substitute specification.
16. ☐ A power of attorney and/or change of address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 C.F.R. 1.821 - 1.825.
18. ☐ A second copy of the published international application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
20. ☒ Other items or information:  
International Search Report

CERTIFICATE OF MAILING BY EXPRESS MAIL  
Express Mail Label No. EV 366527776 US  
Date of Deposit: August 1, 2005

|  |              |   |         |  |        |
|--|--------------|---|---------|--|--------|
| U.S. APPLICATION NO. <b>10/344075</b><br><small>(If known, see 37 C.F.R. 1.5)</small>  |              | INTERNATIONAL APPLICATION NO.<br>PCT/EP2003/014352  |         | ATTORNEY'S DOCKET NUMBER<br>14219-088US1 |        |
| The following fees have been submitted   |              |   |         |  |        |
| 21. <input checked="" type="checkbox"/> Basic national fee.....\$300   |              |   |         | \$300.00                                 |        |
| 22. <input checked="" type="checkbox"/> Examination fee<br>If International preliminary examination report prepared by USPTO and all claims satisfy provisions of PCT Article 33(1)-(4).....\$100<br>All other situations.....\$200  |              |   |         | \$200.00                                 |        |
| 23. <input checked="" type="checkbox"/> Search fee<br>Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority.....\$100<br>International Search Report prepared and provided to the Office.....\$400<br>All other situations.....\$500 |              |   |         | \$400.00                                 |        |
| Total of 21, 22 and 23 =   |              |   |         | \$900.00                                 |        |
| <input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium).<br>The fee is \$250 for each additional 50 sheets of paper or fraction thereof.                                      |              |   |         |  |        |
| Total Sheets   | Extra Sheets | Number of each additional 50 or fraction thereof (round up to a whole number)                     | RATE    |  |        |
| -100 =   | /50 =        |   | X \$250 | \$0.00                                   |        |
| Surcharge of \$130 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 C.F.R. 1.492(h)).   |              |   |         | \$0.00                                   |        |
| CLAIMS   | NUMBER FILED | NUMBER EXTRA  | RATE    |  |        |
| Total Claims   | 15 - 20 =    | 0   | x \$50  | \$0.00                                   |        |
| Independent Claims   | 2 - 3 =      | 0   | x \$200 | \$0.00                                   |        |
| MULTIPLE DEPENDENT CLAIM(S) (if applicable)  |              |   | + \$360 | \$0.00                                   |        |
| TOTAL OF ABOVE CALCULATIONS =  |              |   |         | \$0.00                                   |        |
| <input type="checkbox"/> Applicant claims small entity status. See 37 C.F.R. 1.27. Fees above are reduced by 1/2.  |              |   |         | \$0.00                                   |        |
| SUBTOTAL =   |              |   |         | \$900.00                                 |        |
| Processing fee of \$130 for furnishing the English Translation later than 30 months from the earliest claimed priority date (37 C.F.R. 1.492(i))   |              |   |         | \$0.00                                   |        |
| TOTAL NATIONAL FEE =   |              |   |         | \$900.00                                 |        |
| Fee for recording the enclosed assignment (37 C.F.R. 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 C.F.R. 3.28, 3.31). \$40.00 per property   |              |   |         | \$40.00                                  |        |
| TOTAL FEES ENCLOSED =  |              |   |         | \$940.00                                 |        |
|  |              |   |         | Amount to be refunded:                   | \$0.00 |
|  |              |   |         | Amount to be charged:                    | \$0.00 |
| a. <input checked="" type="checkbox"/> A check in the amount of \$940.00 to cover the above fees is enclosed.  |              |   |         |  |        |
| b. <input type="checkbox"/> Please charge my Deposit Account No. 06-1050 in the amount of \$0.00 to cover the above fees. A duplicate copy of this sheet is enclosed.  |              |   |         |  |        |
| c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 06-1050. A duplicate copy of this sheet is enclosed.  |              |   |         |  |        |
| d. <input type="checkbox"/> Fees are to be charged to a credit card. <b>WARNING:</b> Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.   |              |   |         |  |        |
| <b>NOTE:</b> Where an appropriate time limit under 37 C.F.R. 1.495 has not been met, a petition to revive (37 C.F.R. 1.137(a) or (b) must be filed and granted to restore the International Application to pending status.   |              |   |         |  |        |
| SEND ALL CORRESPONDENCE TO:  |              |   |         |  |        |
| PTO Customer No: 26161   |              | <br>SIGNATURE |         |  |        |
|  |              | Paul A. Pysher  |         |  |        |
|  |              | NAME  |         |  |        |
|  |              | 40,780  |         |  |        |
|  |              | REGISTRATION NUMBER   |         |  |        |